

# **Clearing Permit Decision Report**

# 1. Application details

# 1.1. Permit application details

Permit application No.: 7468/1

Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Intermin Resources Limited

1.3. Property details

Property: Mining Lease 29/420

Miscellaneous Licence 29/109

Local Government Area: Shire of Menzies

Colloquial name: Goongarrie Lady Project

1.4. Application

Clearing Area (ha) No. Trees Method of Clearing For the purpose of:

179 Mechanical Removal Mineral Production and associated infrastructure

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 7 April 2017

# 2. Site Information

## 2.1. Existing environment and information

### 2.1.1. Description of the native vegetation under application

**Vegetation Description** 

Beard vegetation associations have been mapped for the whole of Western Australia. Three Beard vegetation associations have been mapped within the application area (GIS Database).

20: Low woodland; mulga mixed with Allocasuarina cristata and Eucalyptus sp.

125: Bare areas; salt lakes; and

**480:** Succulent steppe with open low woodland; mulga and sheoak over salt bush.

A flora and vegetation survey was undertaken over an area of approximately 255 hectares, which included the application area and surrounding areas, on 20 November 2016 by Botanica Consulting (2017). This survey has identified the following eight vegetation communities within the survey area, associated with four landform types:

### Clay-Loam Plain

# Casuarina Forests and Woodlands (MVG 8)

CLP-CFW1: Low woodland of Casuarina pauper over open shrubland of Acacia burkittii/ Acacia hemiteles/ Dodonaea lobulata and open tussock grassland of Enteropogon ramosus/ Eragrostis eriopoda on clay loam plain.

# **Eucalypt Woodlands (MVG 5)**

CLP-EW1: Low open woodland of *Eucalyptus clelandii* over open shrubland of *Acacia kempeana/ Acacia burkittii* and open chenopod shrubland of *Atriplex* spp. on clay loam plain.

# Mallee Woodlands and Shrublands (MVG 14)

CLP-MWS1: Mid open mallee woodland of *Eucalyptus celastroides* over mid open shrubland of *Cratystylis subspinescens/ Dodonaea viscosa/ Eremophila scoparia* and low open shrubland of *Atriplex vesicaria/ Frankenia setosa* on clay loam plain.

### Closed Depression

### Casuarina Forests and Woodlands (MVG 8)

CD-CFW1: Low open woodland of *Casuarina pauper* over open shrubland of *Cratystylis subspinescens* and open chenopod shrubland of *Atriplex* spp. in closed depression.

# Chenopod Shrublands, Samphire Shrublands and Forblands (MVG 22)

CD-CSSSF1: Mid sparse chenopod shrubland of *Maireana glomerifolia* over samphire shrubland of *Tecticornia halocnemoides* and open forbland of *Disphyma crassifolium* in playa.

### <u>Dune</u>

# Casuarina Forests and Woodlands (MVG 8)

D-CFW1: Open low woodland of Casuarina pauper over open shrubland of Acacia ramulosa var. ramulosa and open samphire shrubland of Tecticornia indica on playa edge dune.

### Rocky Hillslope

### Acacia Shrublands (MVG 16)

RH-AS1: Tall shrubland of *Acacia collegialis/ Acacia tetragonophylla* over mid open shrubland of *Dodonaea lobulata* and low open shrubland of *Chrysocephalum puteale/ Ptilotus obovatus* on rocky hillslope.

### Low Closed Forests and Tall Closed Shrublands (MVG 15)

RH-LCFTCS1: Tall open shrubland of *Melaleuca hamata* over mid open shrubland of *Scaevola spinescens* and open samphire shrubland of *Tecticornia halocnemoides* on quartz/ rocky low hill.

### **Clearing Description**

Goongarrie Lady Project

Intermin Resources Limited proposes to clear up to 179 hectares of native vegetation within a total boundary of approximately 179 hectares for the purposes of mineral production and mining related infrastructure. The project is located approximately 43 kilometres southeast of Menzies, in the Shire of Menzies.

### **Vegetation Condition**

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery, 1994);

To:

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).

### Comment

The vegetation condition is derived from a flora and vegetation survey conducted by Botanica Consulting (2017). The application area is located at the site of an historical minesite and previous disturbance includes an existing mine pit and waste rock landform (Botanica Consulting, 2017).

# 3. Assessment of application against Clearing Principles

# (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

#### Comments

# Proposal is not likely to be at variance to this Principle

The application area is located within the Eastern Murchison subregion of the Murchison Bioregion of the Interim Biogeographic Regionalisation for Australia (GIS Database). The Eastern Murchison subregion is characterised by broad plains of red-brown soils and breakaway complexes as well as red sandplains. The vegetation of this subregion is dominated by Mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and Halosarcia shrublands (CALM, 2002).

A Level 1 flora and vegetation survey was conducted by Botanica Consulting over the application area and surrounding areas during November 2016 (Botanica Consulting, 2017). A total of 91 flora species, from 21 families and 45 genera were recorded within the survey area (Botanica Consulting, 2017).

No Threatened Flora, Threatened Ecological Communities or Priority Ecological Communities have been recorded within or in close proximity to the application area, and none were found during the survey (Botanica Consulting, 2017; GIS Database).

Desktop surveys of available databases identified 12 Priority flora species with the potential to occur within the survey area, based on known distributions and habitat preferences (Botanica Consulting, 2017). Of these, two species: *Ptilotus chortophytus* (P1) and *Ptilotus rigidus* (P1) were recorded during the survey within the application area (Botanica, 2017). Potential impacts to Priority flora may be minimised by the implementation of a flora management condition.

The vegetation condition within the survey area was described as Good to Very Good on the Keighery scale, with parts of the application area previously disturbed by historical mining activities and more recent mineral exploration activities (Botanica Consulting, 2017).

Two introduced flora species were recorded during the flora survey: *Medicago minima* and *Centaurea melitensis* (Botanica Consulting, 2017). Weeds have the potential to out-compete native flora and reduce the biodiversity of an area. Potential impacts to biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

The application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

# Methodology

Botanica Consulting (2017)

CALM (2002)

GIS Database:

- IBRA Australia
- Pre-European Vegetation

- Threatened and Priority Flora
- Threatened and Priority Ecological Communities Boundaries

# (b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

# Comments Proposal is not likely to be at variance to this Principle

A Level 1 fauna and habitat survey was conducted over the application area and surrounding areas in November 2016 (Botanica Consulting, 2017). The survey comprised a desktop search of relevant fauna databases and a field reconnaissance survey. The main habitat types within the application area were described as: clay-loam plains; closed depressions; lake edge dunes; rocky hillslopes; and playa lake (Botanica Consulting, 2017).

Botanica Consulting (2017) reported that the habitat types within the clearing permit application area did not contain any restricted fauna habitats.

Several fauna species of conservation significance (mostly birds) have the potential to occur within the application area (Botanica Consulting, 2017; DPaW, 2017). However, the majority of these species are highly mobile and all have wide distributions, and although they may pass through or forage within the area, they are unlikely to be specifically dependant on the habitats within the application area (Botanica Consulting, 2017). No fauna species of conservation significance were observed during the on-site survey (Botanica Consulting, 2017).

The fauna habitats found within the application area are common and widespread in the region (Botanica Consulting, 2017; GIS Database). Botanica Consulting (2017) concluded that potential impacts to fauna are generally likely to be minor, and the vegetation proposed to be cleared is unlikely to represent significant habitat for fauna in a regional context.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

#### Methodology

Botanica Consulting (2017)

DPaW (2017)

GIS Database:

- Imagery
- Pre-European Vegetation

# (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

# **Comments** Proposal is not likely to be at variance to this Principle

A flora survey of the application area did not record any species of Threatened flora (Botanica Consulting, 2017). The vegetation associations recorded within the application areas are well represented in surrounding areas (Botanica Consulting, 2017; GIS Database), and the vegetation proposed to be cleared is unlikely to be necessary for the continued existence of any species of Threatened (rare) flora.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

# Methodology Botanica Consulting (2017)

GIS Database:

- Threatened and Priority Flora

# (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

# Comments Proposal is not likely to be at variance to this Principle

There are no known Threatened Ecological Communities (TECs) located within a 100 kilometre radius of the application area (GIS Database).

Surveys of the application area did not identify any TECs (Botanica Consulting, 2017).

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

# Methodology Botanica Consulting (2017)

GIS Database:

- Threatened and Priority Ecological Communities - Boundaries

# (e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

## Comments Proposal is not at variance to this Principle

The application area falls within the Murchison IBRA bioregion (GIS Database). The vegetation within the application area is broadly mapped as the following vegetation associations:

- 20: Low woodland; mulga mixed with Allocasuarina cristata and Eucalyptus sp.
- 125: Bare areas; salt lakes; and
- 480: Succulent steppe with open low woodland; mulga and sheoak over salt bush (GIS Database).

These vegetation associations have not been extensively cleared, as over 90% remains at both a State and bioregional level for these vegetation associations (see table) (Government of Western Australia, 2015).

The vegetation within the application area is not a remnant of native vegetation within an area that has been extensively cleared.

	Pre-European area (ha)*	Current extent (ha)*	Remaining %*	Conservation Status**	Pre-European % in DPaW Managed Land
IBRA Bioregion - Murchison	28,120,586	28,044,823	~99	Least Concern	7.78
Beard vegetation associations - State					
20	1,295,103	1,292,475	~99	Least Concern	19.38
125	3,485,787	3,146,496	~90	Least Concern	9.28
480	86,099	86,064	~99	Least Concern	8.98
Beard vegetation associations - Bioregion					
20	1,174,259	1,171,630	~99	Least Concern	15.52
125	711,483	710,255	~99	Least Concern	7.21
480	48,745	48,710	~99	Least Concern	15.87

<sup>\*</sup> Government of Western Australia (2015)

Based on the above, the proposed clearing is not at variance to this Principle.

## Methodology

Department of Natural Resources and Environment (2002) Government of Western Australia (2015)

GIS Database:

- IBRA Australia
- Pre-European Vegetation

# (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

# Comments Proposal is at variance to this Principle

There are no permanent watercourses or wetlands within or in close proximity to the application area (GIS Database). Part of the application area intersects with the edge of Lake Goongarrie, at the southern end of the lake (GIS Database). Lake Goongarrie is a large salt lake approximately 18 kilometres in length and covering an area of approximately 11,300 hectares (Botanica Consulting, 2017; GIS Database). The lake is dry for most of the year, only filling briefly following significant rainfall events (Botanica Consulting, 2017).

Several minor ephemeral drainage lines pass through the application area (GIS Database). Minor drainage lines in the area drain towards Lake Goongarrie and only flow briefly, immediately following significant rainfall (Botanica Consulting, 2017; CALM, 2002).

Based on the above, the proposed clearing is at variance to this Principle. However, due to the size of the lake and the abundance of ephemeral drainage channels in the region, the proposed clearing is unlikely to have any significant impact on vegetation associated with water courses or wetlands, including Lake Goongarrie.

<sup>\*\*</sup> Department of Natural Resources and Environment (2002)

#### Methodology

Botanica Consulting (2017)

CALM (2002)

GIS Database:

- Hydrography, Lakes
- Hydrography, linear

# (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

#### Comments

# Proposal may be at variance to this Principle

The landforms and soil types of the subregion include broad plains of red-brown soils, breakaway complexes and red sandplains (CALM, 2002). The vegetation is dominated by Mulga Woodlands often rich in ephemerals; hummock grasslands, saltbush shrublands and Halosarcia shrublands (CALM, 2002). Soils of the region are generally protected by stony mantles (CALM, 2002), however accelerated soil erosion may occur where vegetation is cleared or protective stony mantles are disturbed.

Based on the above, the proposed clearing may be at variance to this Principle. Potential land degradation as a result of the proposed clearing may be minimised by the implementation of a staged clearing condition.

### Methodology

CALM (2002)

GIS Database:

- Imagery
- Rangeland Land System Mapping

# (h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

### Comments

## Proposal is not likely to be at variance to this Principle

The southern section of the application area falls within the former Goongarrie pastoral lease, which is managed for conservation purposes by the Department of Parks and Wildlife (GIS Database). The former Goongarrie pastoral lease covers an area of more than 100,000 hectares, approximately 147 hectares of which falls within the application area (GIS Database). The proposed clearing is unlikely to have any significant impacts on the environmental values of this or any other conservation area.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

### Methodology

GIS Database:

- DPaW Tenure

# (i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

### Comments

# Proposal is not likely to be at variance to this Principle

There are no Public Drinking Water Source Areas within or in close proximity to the application area (GIS Database). The groundwater in the area is hypersaline, and the proposed clearing is unlikely to cause any significant changes in the groundwater quality (Botanica Consulting, 2017).

There are no permanent watercourses or wetlands within the application area (GIS Database). Part of the application area intersects with the edge of Lake Goongarrie, a large ephemeral salt lake (GIS Database). Minor saline drainage lines are abundant in the area and drain towards Lake Goongarrie. However, they are dry for most of the year, only flowing briefly immediately following significant rainfall (CALM, 2002).

Soils of the region are generally protected by stony mantles (CALM, 2002). Removal of vegetation and disturbance of the stony surface may result in an increase in runoff and may increase sediment loads in ephemeral drainage lines. However, the relatively flat terrain of the application area (GIS Database) will minimise surface water runoff, and any impacts to surface water quality are likely to be minimal.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

### Methodology

Botanica Consulting (2017)

CALM (2002)

GIS Database:

- Hydrography, Lakes
- Hydrography, linear
- Public Drinking Water Source Areas

- Topographic Contours, Statewide

# (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

# Comments Proposal is not likely to be at variance to this Principle

The climate of the region is semi-arid, with a low average rainfall of approximately 200 millimetres per year (Botanica Consulting, 2017; CALM, 2002). Drainage lines in the area are dry for most of the year, only flowing briefly immediately following significant rainfall (Botanica Consulting, 2017).

There are no permanent water courses or waterbodies within the application area (GIS Database). Part of the application area intersects with the edge of Lake Goongarrie, a large ephemeral salt lake (GIS Database). Temporary localised flooding may occur during heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

### Methodology

Botanica Consulting (2017)

CALM (2002)

GIS Database:

- Hydrography, Lakes
- Hydrography, linear

# Planning instrument, Native Title, Previous EPA decision or other relevant matter.

#### Comments

There are no Native Title claims over the area under application (DAA, 2017). The mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

The clearing permit application was advertised on 27 February 2017 by the Department of Mines and Petroleum inviting submissions from the public. One submission was received raising concerns over potential impacts to Aboriginal Sites of Significance.

There are no registered Aboriginal Sites of Significance within the application area (DAA, 2017). However, it is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, Department of Parks and Wildlife and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

Methodology DAA (2017)

# 4. References

Botanica Consulting (2017) Level 1 Flora and Fauna Survey of the Goongarrie Lady Project. Report prepared for Intermin Resources Limited, by Botanica Consulting, January 2017.

CALM (2002) A Biodiversity Audit of Western Australia's 53 Biogeographic Subregions in 2002. Department of Conservation and Land Management, Western Australia.

DAA (2017) Aboriginal Heritage Inquiry System, Government of Western Australia, Department of Aboriginal Affairs, Perth < <a href="http://maps.dia.wa.gov.au/AHIS2/">http://maps.dia.wa.gov.au/AHIS2/</a> accessed 31 March 2017.

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

DPaW (2017) NatureMap Department of Parks and Wildlife, <a href="http://naturemap.dec.wa.gov.au">http://naturemap.dec.wa.gov.au</a> accessed 31 March 2017. Government of Western Australia (2015) 2015 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). WA Department of Parks and Wildlife, Perth.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

# 5. Glossary

## **Acronyms:**

BoMBureau of Meteorology, Australian GovernmentDAADepartment of Aboriginal Affairs, Western AustraliaDAFWADepartment of Agriculture and Food, Western Australia

DEC Department of Environment and Conservation, Western Australia (now DPaW and DER)

DEE Department of the Environment and Energy, Australian Government

DER Department of Environment Regulation, Western Australia
DMP Department of Mines and Petroleum, Western Australia

**DRF** Declared Rare Flora

**DoE** Department of the Environment, Australian Government (now DEE)

**DoW** Department of Water, Western Australia

**DPaW** Department of Parks and Wildlife, Western Australia

DSEWPaC Department of Sustainability, Environment, Water, Population and Communities (now DEE)

EPA Environmental Protection Authority, Western Australia
EP Act Environmental Protection Act 1986, Western Australia

EPBC Act Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)

GIS Geographical Information System
ha Hectare (10,000 square metres)

IBRA Interim Biogeographic Regionalisation for Australia

IUCN International Union for the Conservation of Nature and Natural Resources – commonly known as the

World Conservation Union

PEC Priority Ecological Community, Western Australia

RIWI Act Rights in Water and Irrigation Act 1914, Western Australia

TEC Threatened Ecological Community

# **Definitions:**

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

### T Threatened species:

Published as Specially Protected under the *Wildlife Conservation Act 1950*, listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.

**Threatened flora** is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

## CR Critically endangered species

Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

# EN Endangered species

Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

### VU Vulnerable species

Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

# EX Presumed extinct species

Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

# IA Migratory birds protected under an international agreement

Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.

## CD Conservation dependent fauna

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice

# OS Other specially protected fauna

Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.

#### P Priority species

Species which are poorly known; or

Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

## P1 Priority One - Poorly-known species:

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

# P2 Priority Two - Poorly-known species:

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

### P3 Priority Three - Poorly-known species:

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

# P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:

- (a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.
- (b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.
- (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.